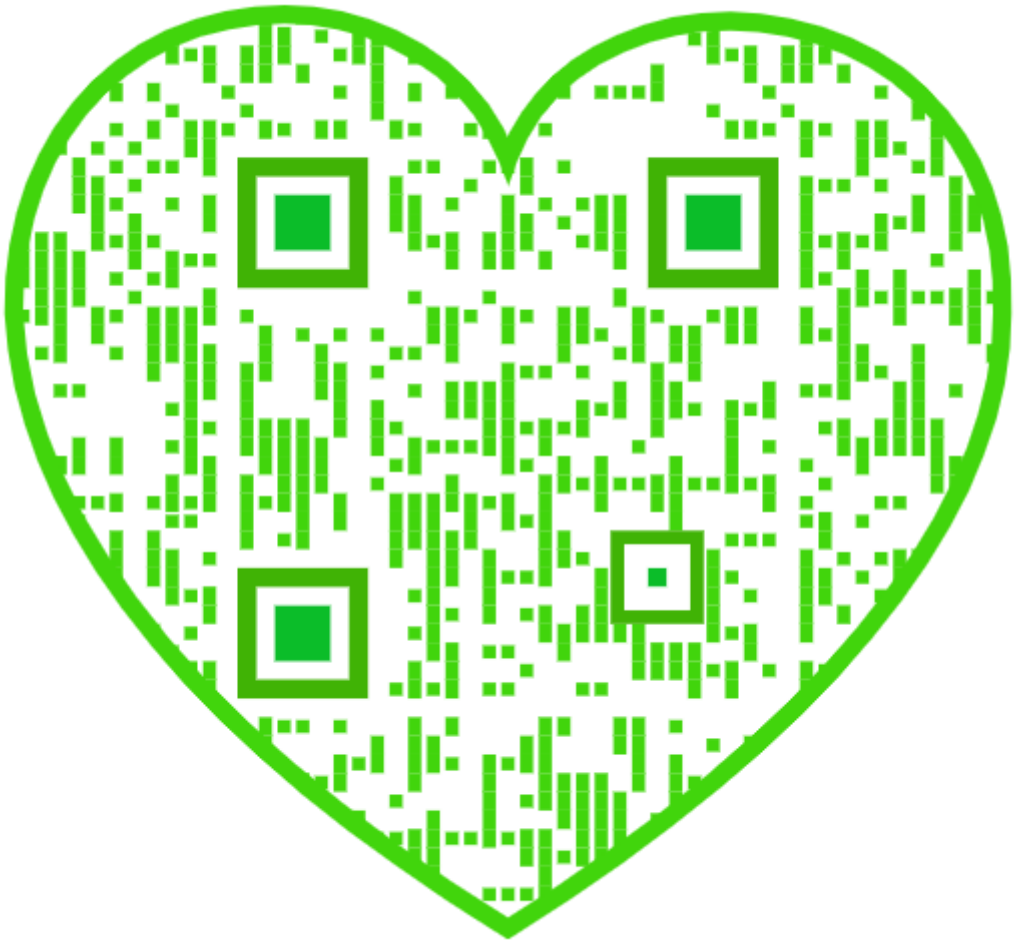

ÆSTHETICAL SANITATION.

BY

WILLIAM WHITE,

FELLOW OF THE SOCIETY OF ANTIQUARIES,
FELLOW OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS,
MEMBER OF THE SANITARY INSTITUTE.

" A thing of beauty is a joy for ever:
Its loveliness increases; it will never
Pass into nothingness."—*Keats.*

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With The Publisher's Compliments.

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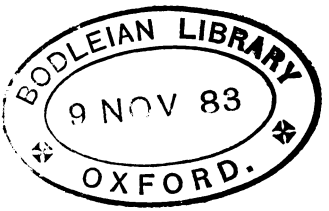
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TO

HER ROYAL HIGHNESS

PRINCESS MARY ADELAIDE DUCHESS OF TECK

Is Dedicated,

WITH SPECIAL AND GRACIOUS PERMISSION,

THIS EARNEST ENDEAVOUR

TO PROMOTE THE INTERESTS OF DOMESTIC WEAL,

AND OF NATIONAL HEALTH,

IN THEIR INTIMATE ASSOCIATION WITH ACADEMIC ART,

BY H.R.H.'S LOYAL AND OBEDIENT SERVANT

WILLIAM WHITE.

PREFACE.

THESE papers, which have now received a few revisions and additions, were contributed in the first instance to the 'British Architect' in a series called "Friends in Council," a series which was initiated by the editor for the purpose of affording to architects a free and friendly interchange of opinion on the very many varying matters which relate to art, and other professional subjects. It has been suggested that I should reprint and publish them in a form suitable for general circulation. I cannot do this without gratefully acknowledging the compliment paid by that journal to my treatment of the subject, and at the same time expressing a hope that the friends of Education, of Art, and of Sanitation, will not fail to give to the whole question the consideration which its importance deserves, and indeed demands, at the hands of all who can lay any claim to intelligence or refinement.

W. W.

30A, WIMPOLE STREET, W.

Art's highest aim—
The human form divine.

New adage.

ÆSTHETICAL SANITATION.

No. I.

"What's a fine person or a beauteous face,
Unless deportment gives them decent grace?
Blest with all other requisites to please,
Some want the striking grace of ease;
The curious eye their awkward movement tires,
They seem like puppets let about by wires."

Churchill.

THE absorbing topics of the present day are High Art and Sanitation. Sinks and sewage, light and air, colour and form, tender tones and graceful bends, are freely discussed, without a thought that there may be a branch of sanitation which has such intimate relations with high art that the one is naturally and materially dependent on the other for its successful development. The consideration of this subject may be of service to "friends," whilst its discussion will be specially suited to the columns of a journal which has devoted so much energy and ability to the cognate subject of costume in relation to the drama. The human form divine has been

rightly regarded as the highest subject of high art; and by many sensible persons, such as are not the mere dupes of whimsey or of fashion, pinched waists and cramped toes are, perhaps, to some extent recognised as incompatible with its healthy expansion, or with its perfect expression. But any one walking for a short distance behind the outpourings of a morning suburban train may see how frightful is the following which folly and fashion obtain in these respects.

The bearing of health on true beauty, and of true beauty upon health, has not met with the recognition which, in these days of art and science, its investigation might be supposed to deserve. My attention has been the more drawn to this lately from facts which have fallen under my observation, through members of my own family having taken up the scientific study of Ling's system of gymnastics, and from the great benefit which they have derived, and are enabled to impart to others by their use.

Figure, and carriage or gait, may be said to comprise all that upon which beauty in form and in grace depends, in so far as these are related to physical form and development. It is curious to see their subversion by ignorance and bad

taste. A waspish figure, unlike a waspish disposition, is considered "a thing of beauty and a joy for ever." Even the picturesque quaintness of the Mediæval, or the flowing grace of the ancient Greek costume, when imitated now, cannot be made to adorn the natural form, but the natural form must first be reduced to a state of artificial beauty by tight bodices and other careful contrivances, to keep the whole in place, lest the falling folds, the tucks or pleats, should be displaced or creased. The delicate form beneath has to be transformed into a dummy before the genuine ware can be set forth to due advantage. An artistic stoop, a Grecian bend, or as some would say, an æsthetic attitude, a gait which is sufficiently marked or peculiar to be the reverse of natural, passes for distinguished, or stylish bearing. And men who ought to know better foster the unreality.

The injuries arising from ill-shaped, or tight, or high-heeled boots and shoes, are very serious to the figure and gait, but still more so to the general health, through the manner in which the distortion of the foot, and of its position, acts upon the muscles of the hips and spine.

Most of the cases in the Orthopœdic hospitals

come under spinal treatment. Even where there is no disease, evil often commences with the first tottering steps of childhood. The child may resent the *tightness* of a shoe and get redress; but suffering soon begins, perhaps unconsciously, through the way in which, by the misfitting of the shoe, the great toe is compressed in the direction of the other toes. The "abductor"—the principal muscle provided for the purpose of drawing it away from them, thus forming a gap between the great toe and the others, and distributing the area of leverage by which the balance of the body is preserved—becomes stretched, and the joint permanently enlarged, creating serious inconvenience, and making steadiness of walk more difficult. The natural instinct by which this defect is remedied is by turning the foot itself inwards. I remember a supposed remedy for this defect being carried out by having the shoes made with pointed toes turning outwards, obviously to the still greater increase of the evil to be remedied.* I also well remember that the village shoemaker of

* For proper form of shoe see 'Knapsack Handbook or Pedestrian's Guide,' Edward Stanford, 55 Charing Cross. I have found Mr. Webb, 31 John Street North, Marylebone Road, a good, anatomical and surgical, working bootmaker.

my native place, when taking his measures, would ask, "Do ye like 'em to poonish ye a bit?" though, whether you wished it or not, he would infallibly punish you, and then complain of the awkward shape of your feet.

How many are there at the present day whose great toe is not thus "adducted," more or less permanently, and the joint enlarged in this manner? Again, facility of balance, upon which gracefulness largely depends, is quite impossible with high or pointed heels. Follow a pair of high heels, and you may observe the wobbling of the ankle, which indicates the undue strain thrown upon the hips and spine. They are also commonly accompanied by the treading down of one side of the foot. Putting the heels upon stilts reduces the power of the lever by which the balance of the body, in an upright position, is preserved; and arching the shoe, to fit the span of the foot, is very much like the shoring up of the keystone of an arch to prevent its falling. The barbarity of the Chinese in transforming by pressure the heads and the feet of their infants is well-nigh outdone by the barbarity of the fashion which subjects the growing bodies and feet of the English to such indignity

and inconvenience. Young persons, whose constitutions have been injured by such means, are further led to delude themselves into the idea that bands and belts are necessary for the support of their enfeebled frames, in ignorance of the mechanical law that although lateral cinctures may add considerably to the strength of a post or column in a building, and that lateral support may be needed in the case of strains, injury or weakness of muscle, such pressure takes away from the force of their free and natural tension, torsion, and contraction, and that under continuous pressure the muscle gets a permanent set or indentation which can be recovered only by long and persevering exercise. I have known a lame child improve in his walk and in his general health from the very time when his high stilted boot, which had been provided to make up for his shortened leg, was removed. Gustavus Adolphus cured his ague by the constant and persevering exercise of his muscular system. I have myself witnessed the daily fatigue of an exhausted body gradually and entirely disappear under the rational use and exercise of a rational system. The muscles being fed by the blood, derive their nutriment

only through their proper exercise; and all pressure or restraint which impedes circulation, reduces the vitality of the muscular system.

The healthy condition of the spinal cord is essential to good figure, and this is dependent on the treatment not merely of the body, but of the feet also.

Whether we are to be allowed, or not, to express our opinion as lovers, husbands, wives, parents, teachers, or guardians, surely we are as artists and sanitarians entitled, nay, bound to raise our voices against so crying an abuse. But what can be pleaded on behalf of "the higher education of women," when we see the floundering way in which young ladies ascend the platform, as I have witnessed, to receive their well-earned prizes and their university certificate? Their heels were manifestly unfit pivots for graceful balance; their arms stretched out for assistance, hampered by sleeves fitted on to a body too tight to rise with the action; their knees tied together as though it would be undignified in the highest degree to move faster than a London policeman towards the scene of a street row. An occasional titter of amusement, or of pity at their ungainly movement,

was too delicately subdued to reach their ear, to offend their susceptibilities, or to raise in them even the suggestion of something wrong. How surely does vanity miss the very aim which it holds forth to itself. The brain, moreover, is found to suffer from the loss of physique by the check given to the nutritive and circulating systems which the improper compression or distortion of the body involves. Only a few months ago, as proved at the inquest, a lady fell apparently a willing victim herein to folly and fashion. In these days of high education and close application many well-grown figures are ruined by the want of a rational antidote to the tedious and cramping position which students are often obliged to take. The most preposterous of these positions, which I am told is a rule in Board schools, is that of the distortion of the whole body by thrusting forward the left arm upon the desk in writing, in order that the pupil may not be able to look over his neighbour's shoulder and see what is written.

Those whose whole frames are duly and properly exercised can endure such processes and such postures with more impunity than those who never have any counteracting advantages,

and there is some hope to be derived from the rational study and exercise of the body, in the wonderful system of which Colonel Ling was at once the author, exponent, and professor, and by which more than 500 muscles of the human frame, together with very many thousands of nerves, are thoroughly and equally exercised and trained. This system, whilst it gives health and vigour to the constitution—especially during growth—is of the greatest possible service in the improvement of the gait and of the figure, rendering these the more æsthetically true and graceful as becomes the highest subject of art. But this system of the valiant Swede must not be confounded with the ordinary exercise of calisthenic poles and dumb-bells, which from violent use, and undue strain thrown upon some muscles to the detriment of others, cannot but be often positively injurious.

Ling was an officer in the army, and having cured, by patient exercise and manipulation, a defective muscle in his own sword arm, he conceived the idea of a preventive, curative, and educational process on a large scale, which eventually resulted in the establishment of the Grand Central Institution at Stockholm.

The benefits derivable from the practice of his system may be neutralised by the body-cramping and shoe-pinching process, which entails such injury and malformation amongst the very classes of persons who would seem to show by their misapplied ingenuity that they are not insensible to the charm and attractiveness of grace and beauty. The remark of a pupil fresh from her class is worth placing on record, as showing an appreciative sense of the value of her training. "Really to any one who has studied the skeleton anatomically, it seems cruel to overload it with cumbrous clothing, and to cramp it with needless restraints." This remark would be especially applicable to Thornycroft's Teucer in this year's Academy [A.D. 1881]. If the heels were *propped* up, but half an inch, what would become of the vigorous balance which is now thrown so admirably on the fore part of the foot? It is pitiful to contemplate what would be the result. Yet this, and more than this, is what we shall be called upon to see and to sanction every day of our lives, till public opinion in art as well as in science shall have become better informed.

No. II.

"Come, and trip it as you go,
On the light fantastic toe."—*Milton.*

MY former paper upon this subject having been so well received, and the importance of it becoming every day more and more apparent, I shall be glad to follow it up with a few more words. In doing this, my chief aim is to set forth in its true light the gain which must accrue to high art from a proper appreciation of the human form, and from a careful consideration of the means requisite to the full development of the body. It will be necessary to dwell now more fully than I could wish upon the physical side of the question, rather than upon the æsthetical, although this will not at all be lost sight of. The means to be employed, as we have seen, consist, in part at least, if not wholly, in proper attention to the exercising of the whole muscular system, and, in certain specified particulars, to the fitness of dress. I appear to have pleaded my cause so

effectually upon the first branch of the subject as to call forth from quarters where I least looked for them, objections to my too free and unrestricted advocacy of Ling's system of educational and medical exercises. I am told that there are professors of physical science who prominently put forward this one small and insignificant branch only of physical treatment, as being the one thing needful for the cure of physical defects, or for the maintenance of physical health and strength, in place, as it were, of the whole system of medical science and skill; that, in other words, there are quacks who impose upon public credulity, and, by an assumption of medical knowledge, persuade people that they can supersede the doctor in cases of weak or distorted muscles and limbs; and that what I have advanced seems to encourage these pretensions.

I need hardly say that I had no idea of giving countenance to any such charlatanry, or of recommending a system as a panacea for all these complaints, or for all persons, whatever might be their state of health or their natural constitution. There may be, indeed, some to whom its benefits would prove questionable. In all cases, care must be taken not to overtax either the physical

frame or the muscular system. It may be advisable, if not absolutely necessary, to have medical advice as to the probable effect of the exercises upon any of whom a doubt may be entertained as to their physical condition, and especially as to the state of their heart and lungs. It will be far better to take an opinion than to run the risk of injury. But even in such cases as those just referred to, it might prove almost always a valuable auxiliary to medical treatment, if carried out in accordance with specific instruction from the medical adviser. But further than this, a proper and a fitting amount of rational exercise must be considered essential to children, a real necessary of life, like good air, wholesome food, and sound sleep. If properly directed, it might perhaps be a cure for some descriptions of sleeplessness. And without meddling with the domain of medicine, except to render it less necessary, which also is the aim of medical science, there must be infinitely less risk of injury from the adoption of the system than from the neglect of it.

Moreover, the dangers arising from an overtaxing of the constitution are almost obviated by the fact that the system itself to which I allude,

when properly carried out, by a properly qualified teacher, expressly avoids violent exertion of any muscle, or of the whole or of any part of the frame, which has not already been exercised up to a condition capable of bearing it. Besides, properly trained and qualified medical men are now taking it up, and making it a speciality. I could tell of an old medical man who, instead of abandoning his practice and wintering abroad as for several years he had done, declares that he has found permanent relief from his paroxysms of asthma solely by these means. He was treated by an officer who had gone through medical training for the purpose of being able to afford relief to his fellow men in this way. Probably this will be taken *cum grano;* but at whatever estimate it may be put, it is certain that invaluable good has been effected.

It is often some little time before pupils can see anything at all in the exercises to enable them to appreciate the care and the attention required to develop their physical powers. Some succeed in persuading not only themselves but their parents and guardians that they can gain greater benefit by what they flatter themselves will be the more interesting and exciting exercise of

dancing and deportment; by walking; or by some more violent form of calisthenics, than by the milder and, as they deem it, the more childish exertion which this system appears at first sight to involve. It needs a certain amount of faith, or else of knowledge and practical experience, to convince them that in order to enable them to profit by lessons in dancing, or by walking or calisthenics, a thorough grounding in the principles of muscular action is of the greatest possible service. Not only the preliminary positions and steps, but new and difficult dances can be learned with greater facility and precision, and in much less time, by those who have been previously taught to exercise their whole muscular system systematically and in a thorough manner. Walking can be made less tiring and ungraceful, by first learning, for instance, the practice of heel-raising, knee-bending, and other exercises for the strengthening of the ankle or other joints according to the special needs of the individual. A pupil who has been quite unable to walk without "hip-wobbling" has been enabled to walk firmly and properly at the end of a course of training.

In every description of exercise, great power

may be developed by a careful and intelligent training in the right use of the lungs and throat. How many there are who do not know, and of those who do know how many there are who do not consider the fact, that the quality and structure of their blood is modified by every breath which they draw, and that proper circulation depends very much on the manner of breathing. Deep and regular breathing is an aid to health, as well as an indication of it. Proper breathing depends very often on infantile management in the first instance, and subsequently upon proper teaching and practice during exercise.

Closely allied to this is the injurious and dangerous habit, often to a great extent constitutional, but capable of considerable amendment, of breathing through the open mouth instead of through the nose. Apart from the susceptibility to cold, and in children to croup, which this habit gives, it is, according to Dr. Richardson, through the open mouth and never through the nose that organic germs of infectious diseases may be taken into the system. From the æsthetical point of view, there can be no question as to the silliness and inanity of expression which it gives, apart from its danger to health.

A few further words must be added also as to the injury caused by improper boots. Elasticity of foot is, as I have already intimated, the great qualification for graceful walking, and for dancing and deportment generally. This is destroyed by the use of high heels. The extent of elasticity is limited by the height which is available for the action of the instep. Let us apply a mathematical illustration. Supposing the heel of the foot to be capable of rising six inches from the ground, but it is to be propped up to the extent of an inch and a half, it is plain that the extent of possible elasticity is reduced by one-fourth. And seeing that it is only in the lower and not at all in the upper part of its action that its elasticity is ordinarily brought into play, this possible height is reduced practically by more than one-half.

Although it is injurious, not to say wicked, to bring up young persons upon high heels, it must not therefore be concluded that the sudden abandonment of them will forthwith set the matter right, or repair an old-established injury. It may have the contrary effect. An old lady of my acquaintance, in her endeavour to conform to the revived fashion of higher heels than those to

which she had been accustomed, was actually disabled for many months by the disturbance of the balance, which threw such a strain upon her knees as to prevent the proper use of her feet. A similarly distressing result would doubtless have been produced, on the other hand, by the sudden abandonment of high heels had she been accustomed to them all her life.

It is surprising to find how few there are who will admit, or indeed appear to be conscious of the fact, even when their attention has been called to it, that the heels of their boots are undercut, or unreasonably and injuriously high. Heels should not be at all undercut, nor should they stand higher from the ground than the thickness of the fore part of the sole. High and narrow heels have been found by eminent medical men to affect the brain, and the sight, through the spinal cord.

Astonishing as it may seem, there has been in Sweden the case of a girl who had become gradually blind whilst quite a child, through blood pressure on the brain, and who at the age of seventeen recovered her sight by means of medical gymnastics, a material part of which consisted in foot and toe movements. The organic structure

of the eye was perfect, but there was some obstruction in the muscular nerves and veins, which was removed by the use of these exercises.

Let us now consider stooping. Many are the parents and many the teachers who still advocate and administer the use of the backboard, whether the old-fashioned straight one, or the more modern elastic form which is indeed still worse as a remedy for rounded shoulders. The weary hour spent in the vain imitation of a trussed fowl is calculated to produce the very opposite result to that which it is intended to have. If the muscles are reduced by force into a constrained position for any length of time, they lose their elasticity, and the apparent amendment is not healthfully produced. But not even an apparent improvement will be permanently secured. The shoulders being fixed in a backward position, the natural and instinctive tendency of the opposing muscles is to act with yet greater force in a forward direction, thus increasing the evil. As illustrating this prevalent evil, together with its popularly supposed remedy, and comparing this with the true and proper cure, it may be instructive to observe that part of the rational and natural treatment for this defect is the pulling of

the arms forward by the teacher or operator. This has to be done with great judgment and care. By this means an active resistance is made which exercises its influence in the reduction of the shoulder-blades to their normal position.

It would be impossible to estimate the amount of unnecessary mutual irritation between parent and child, between teacher and pupil, occasioned merely by the recurring reprimand, "Now, do sit up," "Don't stoop," sharply spoken, without a thought that a knowledge of anatomy, and systematic teaching in the right use of the joints, and especially of these joints, are requisite in order to impart to the child that self-command without which all other such commands must in reality be futile. The lower joint of the neck probably will be left passive, the upper joint having to do double duty, whilst the proper result is simply unattainable without actual training. The poking neck, whether in a girl or boy, may indeed easily arise from so slight a thing as an ill-fitting dress or collar.

There is no need to multiply instances or illustrations. The greatest difficulty, and the most important principle, to be impressed upon pupils is the necessity for retaining in a perfectly

passive state every muscle in the whole system, except the special muscles which are at the moment commanded by the teacher to be exercised, and for exercising these muscles fully and freely "without moving a muscle," so to say, that is not so commanded.

One of my nieces gives an interesting description of the manner in which the Malagasy cultivate their powers in this respect. In an account of her sojourn in Madagascar she speaks of visiting native cottages and school feasts, where she witnessed this extraordinary command over the entire muscular system to which the children attain.

"I was struck with admiration and wonder in watching the dancing. It is quite a natural amusement among all native children, especially the slaves. On moonlight nights they collect in some garden. A certain number form the band, with singing and clapping to which the others dance. I was especially struck with the girls. Every joint in their body seemed moving at once, in a most wonderfully graceful way, and all in perfect time. The movement could only be described as serpentine. Their advance is so gradual as to be almost imperceptible. The

step would be impossible for us to get hold of, with boots on. The boys' dancing is a sort of heel and toe style, rather like a hornpipe, with *no* movement of the arms or head. The latter is kept perfectly still and upright. The stepping is kept in time to a drum which bystanders beat for them."

A little practical experience and a short course of teaching will convince the intelligent child that there is abundant scope for the exercise of real skill, patience, and perseverance in arriving at perfection even in the less elaborate system here advocated.

The prevailing idea, common to teacher, pupil, and public alike, appears to be that the value of gymnastics consists in the variety of the multitudinous and elaborate movements which have to be done with the greatest precision, by any number of pupils simultaneously, in a given length of time. The means are mistaken for the end. The true end is the perfection of balance and freedom of action, the entire control over every movement, the self-command, the development of ease and deportment, which proper teaching and thorough training alone can give.

There are some who seem to find no interest in anything relating to education, and have no

power to take in the most ordinary instruction; as there are others also whose brain is but too active. The surest way of interesting young persons is to endeavour to bring them to a consciousness of exercising powers which have been dormant in them hitherto, and of which they had little or no fixed idea. They may then subsequently discover further that such exercise will contribute not only to health and physical enjoyment, but to superadded beauty and grace.

No. III.

"Loveliness
Needs not the foreign aid of ornament,
But is, when unadorn'd, adorn'd the most."
Thomson.

"Proper deformity seems not in the fiend
So horrid, as in woman."—*Shakespeare.*

IN the two foregoing papers my main point has been, I think, sufficiently proved and illustrated. It must have been seen how intimately connected the sanitation of the body is with its physical action and form, and consequently how the higher forms of human grace and beauty, as subjects of æsthetical study, are in certain particulars capable of development by means of rational and careful attention to health. A few further considerations may assist in the enforcement of these lessons upon those who are disposed to treat the matter superficially or thoughtlessly.

There is now existing a great prevalent two-

fold evil. There is first among many classes of men the absence of energy and activity, the want of training of the muscular frame required for perfect growth; and secondly, amongst women the degeneracy of their offspring, as well as of themselves, caused by the vanity of fashion,—the slender waist and the dainty foot,—in nearly all classes of society.

The various national manly games have kept up a great deal of vigour in England. This exercise, however, has been almost limited to our public schools, and hence will not compete with the national system of Sweden, which has at the present day a far more wide-spread influence, and which would be the best preparation possible for the English athlete, giving him confidence, and power at the same time. But the boisterous and undisciplined force of the few is apt to have a depressing and counteracting influence upon what might have been an equally vigorous, though less demonstrative power of the many. Moreover, it is only to the minority that such vigorous sports and exercises are really and effectually open; and it is the majority which requires encouragement, training, and bringing into wholesome action. The healthy

vigour of those who do avail themselves of their opportunities is unmistakable, and one has only to pass an ordinary cricket or football ground to find the evidence of it.

Attention has been called to the remarkable "counteracting" influences called into play in the case of direct strain upon certain muscles. A cramping and continuous strain forcibly exerted in the direction contrary to a defect has a decided tendency to increase rather than cure the evil; whilst a strain in the same direction, but judicious, gentle and periodical, will by its "reacting" influence conduce to the cure. In the act of using an organ to its full extent, up to but not beyond the point where exhaustion begins, there is set in motion a recuperative force, which goes on always increasing with the amount of use. Thus there is a striking analogy between the physical and the mental, whether in art or in education. Overwork of the brain, and too close application to mental occupations in growing children, will injure and impede education, cramping and weakening the mental power and growth; whilst more moderate and properly apportioned teaching will, in the long run, win the day. But the more civilised and better

educated nations can hardly compete in muscular energy and activity with many of the native tribes of savage and unsophisticated or uneducated races. The fatigue which Indians can endure, and the long and rapid journeys on foot which (till they become enervated by spirit-drinking) they are able to effect, must arise in great measure from their special training and discipline. In their case it is said that vigour and health are preserved materially by the practice of "mouth-closing" referred to in my second paper. This is the first lesson taught by the Indian mother to her infant children even from the very day of their birth. If the child should go to sleep with open mouth, the mother will with her finger gently close the lips, and if necessary raise the chin, holding it firm for a few moments, whilst proper breathing through the nose is commenced, or restored. To this firm and habitual closing of the mouth, sometimes requiring great perseverance, is largely attributed firmness and regularity of the teeth, a material element in facial beauty. The unlovely protrusion of teeth which we sometimes see has doubtless arisen also from the open mouth, which in its first unformed and tender stage has been

allowed to undergo habitual outward pressure by the finger or the thumb, or by biting upon the lower lip. And the remedy is rarely taken in hand till the evil has become well-nigh incurable.

Let us now again recur for a moment to the fact, and the influence, of female "body-cramping" upon our subject. There are two distinct phases or rather degrees of pressure, the moderate and the immoderate, which nevertheless often so merge into one as to be scarcely discernible from each other. The major degree of compression is when the tightening strain is altogether continuous during the day. This is, of course, the most serious form which the fashion can take. The other, more insidious, and perhaps equally prevalent, is when the tightening process can be detected only in drawing the breath, or in abnormal postures and positions, under exertion or occupation, which may tend to muscular expansion of certain accompanying parts of the body. The only safe rule is to observe whether any portion of the dress will *open in the smallest degree* when the buttons, hooks and eyes, or laces are undone, and whether the arms can be, at will, raised, lowered, thrown backwards or forwards,

turned in any direction, without any perceptible *drag* on the dress. I well remember in my younger days suffering for a considerable time frequent pain and discomfort in my chest. It one day crossed my mind that sometimes, intuitively and without thought, I had been taking ease by unbuttoning the upper part of my waistcoat. I then observed that it would not close easily by half an inch, without a slight straining or stretching, which evidently impeded, although but a little, the free expansion of the chest, and the deep inspiration essential to perfect health. I forthwith applied to the tailor instead of to the doctor for the remedy, which soon brought its full relief.

One symptom of a restricted waist may be found in rapidity of breathing, indicating a large reserve portion of the lungs being left dormant, and shortening the supply of oxygen to the blood. I have counted the respirations of the unconscious victim, and found them amount to no less than a rate of 1100 to 1200 per hour instead of the normal rate of about 900. A hopeful sign of the times perhaps is shown in a desire to escape from the thraldom of fashion at the present day. Qualms of conscience, or other

considerations, are apt to make "woman-nature" shrink from admitting, even to dearest friends, that the slenderness of the frame could be anything but perfectly natural. Strangely enough, many of those who naturally inherit the most graceful figures are brought up and educated "to improve them off the face of the earth" through this vain competition. They are left perhaps too much to ignorant nurses, or young governesses (to say nothing of still more ignorant mothers or their fashionable dressmakers), whose one desire is, according to their lights, to set them off to the best advantage, and who regard what no stretch of politeness could call other than a "waggling gait," as distinguished bearing, or aristocratic swing. They must, in spite of the proverb, set about adorning the natural beauty to which they cannot be blind; not seeing that the inevitable result must be deformation and disguise.

It is but a sorry satisfaction to be informed that, as a fact, it requires a much more competent and painstaking dressmaker, and much more patient and careful fitting, to make a dress sit well and at the same time allow it to be perfectly free. It is a much simpler and easier

process to keep a dress in place by the tightening of certain parts, than by a proper fit; and it reduces all figures to a lower standard of uniformity, which requires consequently less individual attention to the details of the form. There is, on the other hand, a far higher opportunity for the display of science, art, or skill in accommodating the dress to the body, than there is in the Procrustean and effete barbarism of accommodating the body to the dress. Yet how many there are who would resent the idea of their being thought incompetent, and who nevertheless would utterly fail under such a test as that of having to produce a becoming costume whilst leaving the body perfectly free in all its actions. Perhaps the first step towards an effectual reformation would be to convince those who control fashion (if such a thing were possible) that such really is the case, and that the art of dressmaking requires a little æsthetical elevation at the hands of its professors.

I purposely abstain from making any suggestion as to the necessity or advisability of retaining or of abandoning stays and improvers. Here might be room for endless controversy, which I have no desire to provoke or to enter

into. I merely maintain that if such devices be requisite for the proper adjustment of a becoming dress, they must be made subservient to the laws and requirements of æsthetical sanitation. They must not be hard, unyielding, rigid, heavy, tight, or any way exaggerated in size or form. I appeal to those who would wish to follow the dictates of common sense and the instincts of true art rather than the whimseys of fashion. I warn those, who whether ignorantly or knowingly manifest such a frightful disregard for the life and well-being of multitudes amongst us, of the responsibility which they incur by continuing their present customs. It would not be fair, however, to lay the whole blame upon the dressmakers, whether ignorant or educated, whether perverse in these respects (as very many of them certainly are) or sensible, reasonable, and painstaking. The sentimental competition for appearance amongst young women, rich and poor alike, regardless of longevity, is not less senseless than that which exists amongst some of the manufacturing classes in injurious and dangerous manufactures. It came to light under the "Women's and Children's Employment Commission" that very many of the operatives

deliberately and knowingly rejected the safeguards, which manufacturers were obliged by law to provide for them, lest the standard of their wages should be lowered. They preferred the certainty of their lungs being riddled with steel filings, their blood poisoned with lead in making white enamel cards, and various other direct evils, to the chance of their high earnings being diminished for the few years of their very short term on earth.

Now, whatever may be the cause, it certainly is the fact that whether from vanity or shame, or from sheer ignorance and want of observation, members of the weaker sex are rarely if ever found at the present day to plead guilty to this suicidal mania, even where it really and manifestly exists, whether in the major or in the minor degree; or to confess themselves in any way parties to it, in the case of others who may be under their influence or control. But the strongest and clearest testimony, medical as well as general, goes to show this to be an indisputable fact. In many cases, no doubt, sensitiveness to pressure has been destroyed by habitual restraint. At a well-known West-end establishment a short time since, a customer had the audacity to expostulate

with another lady upon the improper tightness of a portion of her girl's dress; and, although she was met with a prompt and emphatic denial of the fact, the girl herself immediately and naively interposed, "Then *that* is why this button is *always* giving way." Medical men are very often strangely remiss in their examination and detection of this fruitful source of debility and disease, or in insisting on its removal.

The injurious influence of such conditions upon the body, both in the whole and in the several parts, and whether from an æsthetical or from a sanitary point of view, must be admitted by all. Apart from the grotesque exaggeration of the bust, as well as the enlargement of the hips resulting from it, the actual sectional form of the body is changed by the continuous constraint; and were it not for the relief afforded by undressing at night, very few victims would long survive to bear witness to this truth. The distortion is capable of mathematical demonstration. The natural and normal form of the waist approximates to a slightly compressed ellipse (or oval, as people will insist on calling it). The circumference of an ellipse is of course greater than that of a circle containing an equal sec-

tional area. Hence the reduction of the circumference, by the tightening of the dress, will reduce the long axis of the ellipse to that of the short axis, in other words to a circle or the section of a cylinder, which form becomes capable of yet further reduction in its diameter by further constant pressure. The circle is a simple elementary form in geometry. It has no place in æsthetics; and, applied on the *reductio ad absurdum* principle of altogether crushing the beauty out of a body, it may with truth be denominated the perfection and embodiment of artificial simplicity. Thus one of the most beautifully varied, free and artistic of forms is reduced to the petty prettiness of a turned ninepin, or a wooden doll; which the popular taste is henceforth called upon to admire, regardless of the insult offered to propriety, sound reason, and common sense. And there are numerous instances of indisputable connection between sanitation and true forms of the highest beauty.

It must not be supposed that these evils are new, or that the disfigurements are now for the first time condemned as vanities and follies, the harbingers of disease and death. It is true that the fashionables of the present day can scarcely

be said to vie with our ancestral dames in their extraordinary exuberance below the waist, of which we read in Malcolm's 'Manners and Customs of London,' A.D. 1811. He says: "Dr. Bulwer illustrates it by mentioning that when Sir Porter Wyche was ambassador from James I. to the Grand Seignior at Constantinople, the Sultaness expressed a wish to see his lady, who went in great state, buried in the verdingdale, to wait upon her. The Sultaness entertained her respectfully; but withal wondering at her great and spacious hips, she asked her whether all English women were so made and shaped about those parts; to which my lady Wyche answered, that they were made as other women were, withal shewing the fallacy of her apparel in the device of the verdingdale; until which demonstration was made, the Sultaness verily believed it had been her natural and real shape." As far as health was concerned, this was a comparatively harmless custom, though æsthetically it was an extremely peculiar, not to say ludicrous, disguise of natural form, which in a different manner and in a minor degree is, as we have seen, still exhibited now, and at a far greater injury to health.

Exuberance of bust, if not in itself to be considered ornamental, is at the present day at least endured patiently for the sake of the supposed advantage of slenderness of waist, which by the contrast is thus greatly emphasised and enhanced. This exuberance was repressed formerly by a fearful ordeal, of which Malcolm says: "Infatuated by the idea of being considered slender and genteel, the young ladies of 1650 used every means to compress their chests and persons. To accomplish this pernicious purpose, high-bodied stays, extending from the hips above the breasts, were worn and laced almost to bursting; by which deadly artifice, says Bulwer, they reduce their breasts into such straights, that they soon purchase a stinking breath; and, while they ignorantly affect to an angust or narrow breast, and to that end by strong compulsion shut up their waists in a whalebone prison, they open the door to consumption and a withering rottenness."

I am told that stays were first of all invented by some man for the punishment of his wife. By what law of retaliation the man himself subsequently came to endure them, it doth not appear, but they were in common use probably for

several centuries, and certainly up to the end of the eighteenth. Nor doth it appear whether man took to his stays kindly by compulsion, or of his own free choice and will. From an old small child's story lately quoted, it is evident that mothers did what they could to encourage and continue their use by bringing up their children from an early age to consider them indispensable. The story runs that Jack Wilful, having objected to being dressed, soon began to scream for Betty to come and dress him, till he became so tired of bed that he tried all he could to dress himself; "but he could not lace his stays." Again, the prevalent use of stays by men is alluded to by Mr. Reeves, who, in his 'Plea for Nineveh,' about A.D. 1657, attacked the public for their extravagance in dress. "The man now is become as feminine as the woman. . . . He must have his narrow waist and his narrow bands, . . . his boots must be crimped and his knees guarded." A later writer observes: "Some of us have got the bodice on, to make us look slender and pretty; and the epicene sleeves do very well fit both the he and the she." And he might very well have described the farthingale, to which I have already referred, as epicene also.

There is yet another phase of æsthetical sanitation in which men seem to have aimed at imitating women, in defiance of the laws of nature, and in utter disregard of the requirements of health. Since the days of the youthful King Edward VI., they have vied with each other in the smoothness of their chins, with more or less of fanciful or fantastic, commonly commonplace, occasionally picturesque reservation. They have now for some time past been reasserting their true form, and natural dignity, in the more sparing use of the razor. Many of us can remember a certain zealous Prelate delivering himself of what was profanely called a *barbarous* charge, in which he laid down the law that the clerical beard was nothing more than a piece of Ritualistic nonsense. But notwithstanding his Lordship's usual classification of Ritualism with Romanism, he could not by any possible approach to truth aver that it was a mere foolish following of Roman use, which makes shaving compulsory. In this respect his Lordship was at one with Rome, instead of the Puritan Divines, in defiance of the severe strictures of the Church in the earliest period of Christianity, which forbade any believer, lay or clerical, to "destroy the hair of

his beard and unnaturally change the form of a man. . . . For God hath made the one decent for women, but unsuitable for men." Nor could his Lordship have been aware of the serious results of shaving to the delicate throat or chest; the constant irritation of the skin rendering these organs, thus deprived of their natural protection, singularly and painfully susceptible of cold. The bitterness of an East wind, and not infrequent abrasures, ought indeed to have been quite enough to justify the disregard of popular fashion, though, at the time of the charge alluded to, young clergymen were to my own knowledge deterred from breaking through the established custom by fear of being called peculiar, whilst they were in fact further assured that it would stand in the way of their promotion. I remember one of the finest beards at that time in England being sacrificed merely to satisfy the insane prejudices of one who might have been proud to possess it. The æsthetical principle involved in all this is, that mannishness of appearance in woman, and effeminacy of appearance in man, may alike be said to countervail one of the brightest charms and grandest truths in Nature, by neutralising her finest contrasts. And these

are contrasts not between dissimilar or incongruous subjects of beauty, but between perfectly harmonious developments of the same typal form.

The injurious, nay fatal, practice of compressing the waist is, as we have seen, the most remarkable illustration of æsthetical degradation. It would be superfluous to enter into details of anatomical and pathological displacement and injury. It is enough that these are tangible and real. So long as the barest instincts of self-preservation and self-respect are sacrificed to a prevailing vanity or fashion, and so long as improved education and a revived æstheticism fail of their high mission in these respects, it would be vain to appeal to the higher grounds of Christian morality, in the reverence due to the body. Sanitation acts have been enforced on behalf of women and children employed in dressmaking, for the regulation of their hours of work and capacity of their workrooms. The grand laboratory of their lungs and heart remains untouched in respect of the evils inflicted on themselves, no less than on the wide world of fashion, by loading the bellows and throttling the valves of the great human furnace, and thus

reducing to a minimum the fire and the fuel which keep it alive. We cannot ask for legislation to free us from this phase of voluntary suffering and senseless sentimentality. The only door of appeal still open to us is the one by which I now venture to invite the sympathies of the reader, or rather of the nation—that of reason and common sense. Argument and experience alike point to the same conclusions. The difficulty of reaching the masses except by example—the right direction of fashion—and the instruction of those who supply dresses to the multitude, stand in the way of material reform. The evil, however, may be much mitigated by these means. It is old and deeply seated. The real difficulty lies quite as much in convincing people of its existence as in arousing public opinion to the need of something being done towards remedying it. Modern æstheticism has in many ways, and on many occasions, been brought into ridicule and contempt by an affectation or false assumption of excellence, which in the absence of scientific principle and critical knowledge has led to spurious and absurd imitation. But in the teachings of Æsthetical Sanitation we have a tangible basis for real and

permanent reform, which from its very nature is free from the dangers of exaggeration or of corrupt following, and which must necessarily lead to a higher appreciative study of the human form divine.

LONDON: PRINTED BY EDWARD STANFORD, 55, CHARING CROSS, S.W.